Paul Tarau, Ph.D.

Department of Computer Science and Engineering  
University of North Texas  
P.O. Box 311366, Denton, Texas 76203, USA  
Phone: +1 (940) 565-2806, +1 (940) 565-2767  
Email: paul.tarau@unt.edu  
Web: https://ptarau.github.io/

# Education

Ph.D. Computer Science, Université de Montréal, 1990  
M.Sc. Computer Science, Université Laval (Québec), 1986  
B.Sc. Mathematics, University of Bucharest, 1975

# Current Position

Professor, University of North Texas

# Research Interests

Generative AI, Natural Language Processing, Logic Programming, Theorem Proving, Abstract Machines, Tree-based Arithmetic Systems, Combinatorics of Lambda Terms

# Selected Publications

* Mihalcea, R., & Tarau, P. (2004). TextRank: Bringing Order into Texts. EMNLP 2004. (Over 7000 citations)
* Tarau, P. (2022). Abductive Reasoning in Intuitionistic Propositional Logic via Theorem Synthesis. Theory and Practice of Logic Programming, 22(5), 693–707.
* Tarau, P., & Blanco, E. (2021). Interactive Text Graph Mining with a Prolog-Based Dialog Engine. Theory Pract. Log. Program., 21(2), 244–263.
* Tarau, P. (2020). Deriving Efficient Sequential and Parallel Generators for Closed Simply-Typed Lambda Terms and Normal Forms. Fundamenta Informaticae, 177(3-4), 385–415.
* Bendkowski, M., Grygiel, K., & Tarau, P. (2018). Random generation of closed simply typed λ-terms: A synergy between logic programming and Boltzmann samplers. Theory and Practice of Logic Programming, 18(1), 97–119.

# Recent Conference Highlights

* Tarau, P. (2022). A Gaze into the Internal Logic of Graph Neural Networks, with Logic. 38th Int. Conference on Logic Programming (ICLP).
* Brock, D., et al. (2022). Textstar: Fast and Lightweight Graph-Based Algorithm for Extractive Summarization. ALTA 2022.
* Guo, Y., et al. (2022). TDependency Graphs for Summarization and Keyphrase Extraction. NLPIR 2022.
* Tarau, P. (2021). Natlog: Lightweight Logic Programming Language with Neuro-symbolic Touch. 37th Int. Conference on Logic Programming.

# Professional Achievements

Over 10000 citations, h-index of 27  
Holder of US Patent No. 7,809,548: "Graph-based Ranking Algorithm for Text Processing"  
Multiple NSF grants recipient  
Invited speaker/keynote at several international conferences and workshops

# Additional Resources

* **Papers online:** https://github.com/ptarau/papers\_with\_code
* **Google Scholar Publications:** https://scholar.google.com/citations?user=JUMRc-oAAAAJ&hl=en
* **GitHub:** https://github.com/ptarau
* **Research Presentations:** https://www.youtube.com/results?search\_query=paul+tarau
* **Generative AI and Logic Programming (New Project):** https://link.springer.com/chapter/10.1007/978-981-97-2300-3\_7